

WHAT IS CLAIMED IS:

1                   1.       A process for preparing organopolysiloxane compositions (A)  
2       having a viscosity measured at 25°C of at least 500 Pa.s., comprising mixing and  
3       kneading organopolysiloxanes (O) and fillers (F) in a first process stage in a  
4       kneading cascade having at least two kneading chambers which are arranged in  
5       series adjacent one another, each containing two kneading tools having parallel axes  
6       and capable of being driven in co-rotating or counter-rotating directions, said  
7       chambers connected to one another by means of openings through which material  
8       passes in a direction transverse to the axes of the kneading tools, at least the first  
9       kneading chamber having a feed opening and the last kneading chamber having a  
10      discharge opening, to provide a raw organopolysiloxane mixture, and, in a second  
11      process stage, kneading and degassing the raw mixture in a reciprocating kneader.

1                   2.       The process of claim 1, wherein the kneading cascade  
2       comprises from 3 to 10 kneading chambers.

1                   3.       The process of claim 1, wherein the kneading tools of the  
2       kneading cascade comprise one or more of kneading blades, rollers, or polygonal  
3       plates.

1                   4.       The process of claim 2, wherein the kneading tools of the  
2       kneading cascade comprise one or more of kneading blades, rollers, or polygonal  
3       plates.

1                   5.       The process of claim 1, wherein the temperature of the  
2       mixture along the reciprocating kneader is regulated by means of orifice plates  
3       whose flow-reducing action can be adjusted from the outside without opening the  
4       kneader.

1                   6.       The process of claim 2, wherein the temperature of the  
2       mixture along the reciprocating kneader is regulated by means of orifice plates

3 whose flow-reducing action can be adjusted from the outside without opening the  
4 kneader.

1 7. The process of claim 3, wherein the temperature of the  
2 mixture along the reciprocating kneader is regulated by means of orifice plates  
3 whose flow-reducing action can be adjusted from the outside without opening the  
4 kneader.

1 8. The process of claim 1, wherein the filler content of the  
2 organopolysiloxane compositions (A) is from 5 to 80% by weight.

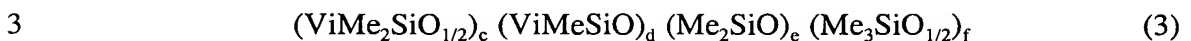
1 9. The process of claim 1, wherein silicas having a specific  
2 surface area determined by the BET method of at least 50 m<sup>2</sup>/g are used as fillers  
3 (F).

1 10. The process of claim 1, wherein polydimethylsiloxanes of the  
2 formula (3)



4 where Vi is a vinyl radical and Me is a methyl radical, and the non-negative integers  
5 c, d, e and f obey the following relationships:  $c+d \geq 1$ ,  $c+f = 2$ ,  
6  $1000 < (d+e) < 9000$ , and  $0 < (d+1) / (d+e) < 1$ , are used as organopolysiloxanes  
7 (O).

1 11. The process of claim 1, wherein polydimethylsiloxanes of the  
2 formula (3)



4 where Vi is a vinyl radical and Me is a methyl radical, and the non-negative integers  
5 c, d, e and f obey the following relationships:  $c+d \geq 1$ ,  $c+f = 2$ ,

6      $3000 < (d+e) < 7000$ , and  $0 < (d+1) / (d+e) < 0.1$ , are used as organopolysiloxanes  
      (O).

1                     12.     The process of claim 1, wherein organopolysiloxanes having  
2     a viscosity measured at 25°C of from 10 to 200 mPa·s are added as structure  
3     improvers (S).